

In the Drawings:

Kindly enter the replacement sheet for figure 2 attached hereto.

REMARKS

Reconsideration and allowance are requested.

The above amendments address the 35 U.S.C. 112 issues in the office action. The amendments to claims 2 and 7 simply add cancelled subject matter of claims 5 and 12 respectively. No new matter has been added by the above amendments or by the present response.

Claims 2, 3, and 5 are patentable under 35 U.S.C. 103(a) over Kondo (JP 10080641 A) in view of Saito (JP 2002113374 A) and Ishizuka (JP2002238479 A).

The Examiner relies on a Kondo translation with the terms: “processing method of non-*****” and states that this “can be reasonably considered to mean “processing method of non-wash rice”. However, the Derwent Notes expressly state that “untranslatable words are replaced with asterisks (*****).” Thus, the Examiner’s assumption is based on conjecture and not on actual teachings of the Kondo reference. Therefore, Kondo is not available as a reference against the claimed invention. Since all the rejections rely on this conjecture therefore all of it must fail making the claims allowable over the cited combination of references (combined with Kondo).

Moreover, in paragraph three on page 5, the Examiner states that “Kondo, ..., fails to teach using bran as the abrasive” and then in paragraph 6, the Examiner states “... it would have been obvious ... to use bran as the abrasive, taught by Kondo...” The Examiner rejects claim 3 over Kondo even after admitting that Kondo does not teach that the mixture is sifted as claimed.

Applicant does not have adequate guidance as to the bases for all of the Examiner’s rejections which are based on conjecture and/or absence of teachings in the very reference relied on by the Examiner in the rejection of every claim. Therefore, applicant is unable to adequately rebut

each of the rejection not knowing how to determine the examiner's basis for each rejection.

Clarification and justification under existing laws and patent rules is respectfully requested.

In any case, the present invention defines a unique method and apparatus for producing wash-free rice that is distinguishable from the art of record. The inventive features include, but are not limited to:

1) since the bran sticking to the rice grains is removed in two steps, namely, in the sifting step and in the separating step, thus bran is almost completely removed from rice grains.

2) Since the ionized air is supplied to the above-mentioned two steps in order to prevent the removed bran and fine powders from sticking to the rice grains again, these bran removing steps can be carried out more effectively.

3) In the separating step, the ionized air flows upward (in direction D in FIG.5 and in Direction H in FIG.7), while rice grains flows downward little by little in order to eliminate static electricity more effectively from rice grains. Since the ionized air flows counter-currently to the little by little flow of the rice grains, static electricity is effectively eliminated from the rice grains.

4) In the separating step, while the rice grains flow downward, the surfaces of the rice grains are brushed in several units.

The Examiner's rejection of the claims relies on Saito as teaching ionized air being supplied to the sifting and separating steps. However, the present invention is quite different from Saito as follows:

1) In the present invention, the bran sticking to the rice grains is removed in two steps, namely, in the sifting step and in the separating step, bran is almost completely removed from rice grains. In the separating step, the ionized air flows upward (in direction D in FIG.5 and in Direction H in FIG.7), while rice grains flows downward little by little in order to eliminate static electricity

more effectively from rice grains. Since the ionized air flows counter-currently to the little by little flow of the rice grains, static electricity is effectively eliminated from the rice grains.

On the other hand, Saito teaches the ionized air is supplied to the bottoms of the two brown rice compartments 18a and 18b, in which mixtures of polished rice grains 17a and bran 17b are filled (see FIG.1), while a helical screw feeder 22 is operated for polishing brown rice grains. While the bran 17b flows upward along with ionized air to a bypass pipe 33, separations and sticking of the bran 17b occur repeatedly. Therefore removing efficiency of the bran is not so effective so that it will take a long time to remove the bran completely.

2) Since method by the present invention including the supplying step of the ionized air is carried out continuously, it is easy to operate and control the method stably.

On the other hand, Saito's method is carried out batch by batch in the brown rice compartments 18a and 18b where rice grains are circulated between the two compartments until the rice polishing operation is finished so that ratio between the bran and the rice grains varies as the progression of the rice polishing operation. Therefore it is very difficult to operate and control method stably. After the polishing operation is over, the polished rice grains are discharged from the bottom (see FIG. 2).

Claim 4 is patentable under 35 U.S.C. 103(a) over Kondo, Saito, Ishizuka and Burkholder (U.S. Patent 5,975,441).

The Examiner rejects claim 4 over Kondo, Saito, Ishizuka and Burkholder (US 5,975,441), which relates to a cylindrical rotary brushing means.

As pointed out above, Kondo, Saito, and Ishizuka do not teach or suggest the claimed invention. Therefore any further combination with other references will also lead away from the present claims.

In any case, the present invention is quite different from Burkholder for at least the following reasons:

1) Objects to be brushed are quite different. The present invention treats mixtures of the rice grains and bran, which have dimensions less than a few millimeters. While treating the mixtures, only faint brushing pressure against the mixture is allowed in order to prevent the rice grains from breaking into tiny pieces. On the other hand, since Burkholder treats rocks, with dimensions far larger than the rice grains, in order to knock the clay, mud and soil off the rocks (col.4, line 54), rather strong pressure against the rocks are required, so that roller assemblies 3, 4 having spike members 5 are employed (col.4, lines 40-41; Fig.1) instead of the claimed brushing means for brushing the surfaces of the rice grains defined by the present invention.

2) Since the present method is applied to food (rice) the brushing system is arranged in a closed system (see, for example, FIGs.5 and 9). On the other hand, Burkholder is applied to the rocks, the brushing system is arranged in an open system.

3) The brushing step by the present invention is carried out in a dry system. On the other hand, since the brushing system by Burkholder is arranged in the open system, a wet system is preferable in order to suppress dust from generating.

4) The ionized air is supplied to the brushing system by the present invention, but it is not necessary to supply ionized air to the brushing system by Burkholder.

Claim 7 is patentable under 35 U.S.C. 103(a) over Kondo, Burkholder (U.S. Patent 5,975,441) and Otsuka (JP 2002248359 A).

Kondo is not available as reference against any of the present claims, as pointed out above. Burkholder, as pointed out earlier, does not describe, teach or suggest the claimed features. Therefore the combination of Kondo and Burkholder, with or without Otsuka, will lead away from the present invention.

In fact, the Examiner does not cite Saito in the rejection, but relies on Saito on page 10, last full paragraph. Thus, it is not clear where in Saito there is basis for the Examiner's statement and Applicant wonders: does the Examiner rely on Saito or not? If yes, why is Saito not expressly cited in the rejection of claim 7? Since this rejection, like the previous ones, is also ambiguous Applicant is unable to adequately rebut this rejection.

Since the method and apparatus of the present invention has the distinguishable features as pointed out above, even a person having ordinary skill in the art could not arrive at the claimed invention by combining the teachings of the cited references.

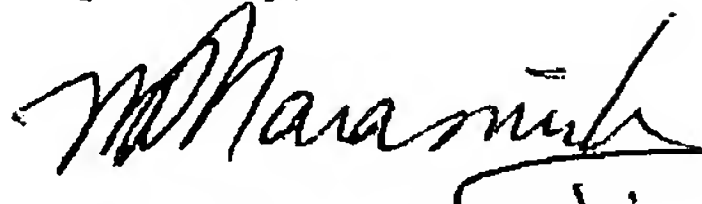
Claims 8, 9, 10, 11, all add further unique features to claim 7 and since the Examiner relies on the same reasons for rejections of these claims, clarification is respectfully requested so that justice prevails and applicant can adequately respond to the office action.

For these additional reasons, and for the reasons set forth regarding the rejection of Claims 2 and 7, the rejection of the all the dependent Claims under 35 U.S.C. 103(a) as being obvious over Kondo in view of Saito, Ishizuka, Burkholder and other references is also improper, and should be withdrawn.

CONCLUSION

Reconsideration and allowance are respectfully requested.

Respectfully,



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